Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Claim 12 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the rejection indicates that the phrase "P(c+2)" lacks proper antecedent basis. Claim 12 has been amended so as to now be dependent from claim 11, instead of claim 10. Therefore, the phrase "P(c+2)" now has proper antecedent basis. As a result, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

It is noted that claims 1-13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Obata (US 5,335, 319) on page 2 of the Office Action and that claims 5, 6, 8, 9 and 11 have also been indicated as containing allowable subject matter. As a result of this apparent inconsistency, the Examiner was contacted for clarification purposes and indicated that only claims 1-4, 7, 10, 12 and 13 have been rejected and that claims 5, 6, 8, 9 and 11 do, in fact, contain allowable subject matter. The Applicants would like to thank the Examiner for this indication of allowable subject matter.

Regarding the rejection, claims 1, 7 and 10 have been amended so as to further distinguish the present invention from the reference. The rejection is submitted to be inapplicable to the amended claims for the following reasons.

Claim 1 is patentable over Obata, since claim 1 recites a polygon rendering device including a polygon division section for dividing, based on polygon data which specifies a polygon to be rendered, the polygon into a plurality of partial polygons such that at least one of the plurality of partial polygons has formed therein, from vertices thereof, a plurality of triangles which respectively share a vertex of the polygon; and a partial polygon rendering section for performing a rendering process and, without requiring further division of any of the plurality of partial polygons, generating partial image data which represents an image of the at least one partial polygon from partial polygon data, wherein a plurality of partial image data represents an image of the polygon when combined. Obata fails to disclose or suggest these features of claim 1.

Obata discloses a method for dividing a polygon into a plurality of triangles. The method first judges each apex of the polygon to be divided to be a concave apex or a

convex apex. The number of apexes of the polygon is then determined. Next, an arbitrary convex apex is selected, and when a number of apexes in the polygon is greater than three, a triangle is form by the two sides uniting the arbitrary convex apex and a line segment interconnecting the end points of the two sides. Once the triangle is formed, it is judge whether other apexes are located within the triangle. If no other apexes are located within the triangle, the triangle is cut from the polygon, the number of apexes is reduced by one, the remaining apexes are again judged as concave or convex apexes, the next arbitrary convex apex is selected and the above operations are repeated as long as the number of apexes is greater than three. If another apex is located within the triangle, then the triangle is not removed, the next convex apex is selected, a new triangle is formed from the next convex apex and the judgment is again performed for the new triangle. (See column 10, line 38 – column 12, line 41 and Figures 1-2(F)).

Based on the above discussion, it is apparent that the method of Obata will only cut one triangle at a time from the polygon. This is apparent from the operation of determining whether other apexes are located within the triangle. If another apex is located within the triangle, the triangle will not be removed from the polygon and another triangle will be selected by selecting a different convex apex. This effectively prevents a polygon portion having a plurality of triangles formed therein from being removed from the polygon. On the other hand, the present invention as recited in claim 1 includes a polygon division section that divides a polygon into a plurality of partial polygons such that at least one of the plurality of partial polygons has formed therein a plurality of triangles which respectively share a vertex, which is not disclosed or suggest in Obata.

Further, claim 1 includes a partial polygon rendering section that performs a rendering process and, without requiring further division of any of the plurality of partial polygons, generates partial image data which represents an image of the at least one of the partial polygon having a plurality of triangles formed therein. Since Obata fails to disclose or suggest the division of at least one partial polygon that has formed therein a plurality of triangles which respectively share a vertex, Obata also necessarily fails to disclose or suggest the generation of partial image data which represents an image of the at least one partial polygon having a plurality of triangles formed therein.

In addition, it is noted that Obata also fails to disclose or suggest a plurality of partial image data that represents an image of the polygon when combined.

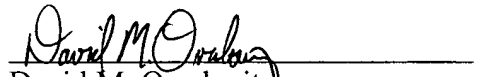
As for claims 7 and 10, these claims are patentable over Obata for the same reasons as set forth above in support of claim 1. That is, claims 7 and 10, like claim 1, each recite the division of a polygon into a plurality of partial polygons such that at least one of the plurality of partial polygons has formed therein, from vertices thereof, a plurality of triangles which respectively share a vertex of the polygon; the generation of partial image data which represents an image of the at least one partial polygon; and that a plurality of partial image data represents an image of the polygon when combined, which features are not disclosed or suggested in Obata.

Because of the above mentioned distinctions, it is believed clear that claims 1-13 are allowable over Obata. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-13. Therefore, it is submitted that claims 1-13 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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